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Osteoarthritis and Cartilage

Editorial

Introduction to OARSI FDA initiative OAC special edition

Since July 1999, the Food and Drug Administration (FDA) has provided guidance for industry on "Clinical Development Programs for Drugs, Devices, and Biological Products Intended for the Treatment of Osteoarthritis (OA)"[1]. This draft guidance document was intended to assist sponsors who were developing drugs, devices or biological products for OA and included a number of issues for sponsor consideration including the utility of animal models and the measurement of improvement in OA. The draft guidance discussed the types of label claims that could be considered for OA products and provided guidance on the clinical development programs to support these claims. It was recognized that OA is a disease with a complex pathophysiology and thus, multiple clinical outcomes for product claims could be considered such as an improvement in signs and symptoms or a delay in structural progression. Additionally, the 1999 draft guidance also proposed, in principal, a claim for prevention of OA. The FDA solicited comments to the draft document and until 2007 no further update was published. It should be noted that under this draft guidance, no products have been approved in the US for the indications of either delay in structural progression or prevention of OA.

On August 14, 2007, a request for proposals (RFP) was posted by the FDA in the Federal Register seeking an updated critical appraisal on the issues related to clinical development programs for the treatment and prevention of OA that would help inform their internal discussions and subsequent finalization of the 1999 OA draft guidance[2].

In response to this solicitation, the Osteoarthritis Research Society International (OARSI) submitted a proposal outlining a specific approach to the management and coordination of a critical appraisal of the science related to the design of clinical development programs for the treatment and prevention of OA. In June 2008, OARSI received approval from the FDA to embark on an 18-month review of the current literature resulting in a series of recommendations for the FDA's consideration as they embark upon finalizing the 1999 OA draft guidance.

Under the direction of an executive committee and through a series of individual committee meetings and teleconferences as well as two open public meetings, eight working groups comprised of individuals from academia, professional societies, industry and governmental agencies [Appendix 1] addressed specific questions outlined within the FDA's original notice. The result was a comprehensive report encompassing the recommendations by each working group based on the current state of knowledge on the pre-defined topics outlined with the original notice as well as a series of on-going research recommendations to further inform the evolving areas of structural change and the role of biomarkers in the context of clinical trials.

This special edition of Osteoarthritis and Cartilage provides an insightful, evidence based exploration and discussion on important issues related to current and future OA clinical program development. While much has been learned since 1999, OA still remains a disease characterized by a prolonged pre-radiographic phase followed by evident structural joint changes, associated with frequent pain and loss of function. The research discussed herein recognizes how far we have come and charts the course for future research into the development of new therapies and devices for OA, as well as the potential for disease modifying drugs.

Declaration of funding and role of funding source

The OARSI FDA OA Initiative received financial support from the following professional organization:

American College of Rheumatology

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Cypress BioScience
DePuy Mitek
Expanscience
4QImaging
Genevrier/IBSA
Genzyme
King (Alpharma)
Merck
Merck Serono
NicOx
Pfizer
Rottapharm
Smith & Nephew
Wyeth

While individuals from pharmaceutical, biotechnology and device companies actively participated in on-going working group discussions, due to the conflict of interest policy enacted by OARSI, these individuals were not allowed to vote on the final recommendations made by OARSI to the FDA.

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Appendix 1. Membership of OARSI FDA initiative committees

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David Hunter, MD, PhD
Gillian Hawker, MD, MSc
C. Kent Kwoh, MD
Maxime Dougados, MD

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Sean Curtis, MD, MPH

Consultant to Executive Committee
Lee S. Simon, MD

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Kenneth Brandt, MD (Chair)
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Michael Doherty, MD
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2. http://www.access.gpo.gov/su_docs/fedreg/a070814c.html; Health and Human Services Department, Food and Drug Administration [Human drugs, biological products, and medical devices] [accessed 10.05.10].

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